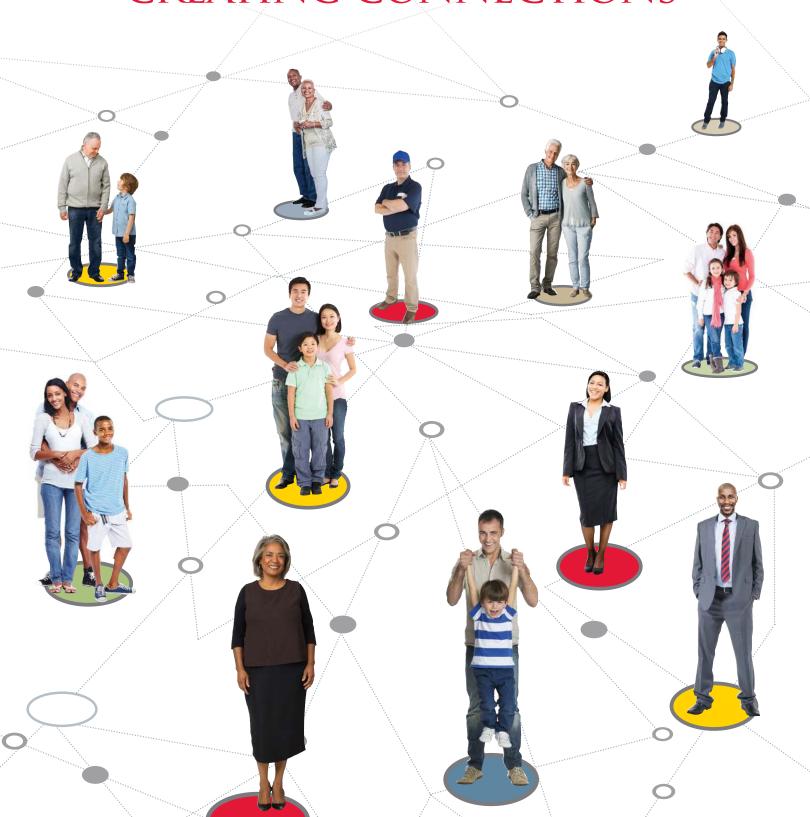


LEADING THE WAYThe Maryland Center of Excellence on PROBLEM GAMBLING CREATING CONNECTIONS



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EXECUTIVE SUMMARY

During FY2018, the Maryland Center of Excellence on Problem Gambling (The Center) focused on several key initiatives which included: 1) the launching of a comprehensive statewide Problem Gambling Awareness Campaign that disseminated messaging through both traditional and digital media outreach outlets raising general awareness of problem gambling and highlighting "no cost treatment now available" for Maryland residents; 2) the expansion of its Peer Recovery Support Specialist (Peer) program, utilizing Peers with lived experience in recovery specifically trained to assist those seeking help with gambling behavior; and 3) the targeted outreach to behavioral health treatment providers to engage in the no-cost treatment reimbursement initiative for problem gamblers and/or their family members.

PUBLIC AWARENESS

A key focus in FY2018 was the implementation of the year-long Statewide Multi-Media Campaign in every jurisdiction within Maryland, resulting in over 113 million total campaign impressions covering both traditional and digital media. The campaign resulted in an increase of total web traffic of over 390,000 total visits (doubling visits recorded in FY17) and over 600 help seeker calls. The Center in partnership with key stakeholders and community advocates, presented to 31 community and client groups, engaging in discussion with over 900 total participants. In addition, the Center participated in 16 events interacting with over 2,000 residents. Over 90,000 awareness materials (cards brochures and awareness flyers/posters) were printed and distributed to residents and health care professionals.

TREATMENT AND INTERVENTION SERVICES IN FY2018

The program to reimburse behavioral health providers and private practitioners for provision of "no cost treatment" to Maryland residents for problem gambling, regardless of insurance or income status, was fully implemented through a collaboration between the Behavioral Health Administration (BHA), Beacon Health Options, Inc. (Beacon) and the Center. To further the integration of treatment services, the Center continued to reach out to agencies, organizations and private practitioners in the behavioral health field as the means to increase the capability for treatment of problem gambling. The Center also continued to participate in the Maryland Alliance for Responsible Gambling (MARG), as another means for minimizing the potential harm that may arise from gambling behavior, supporting the responsible gambling practices and coordinating and maximizing resources to address problem gambling in Maryland.

PEER RECOVERY SUPPORT IN FY2018

The first year the Peer program was fully implemented, the Peer Recovery Support Specialists (Peers) assisted 81 individuals with problems due to their gambling activity; 30 of whom entered clinical counseling. In addition, referrals to Gamblers Anonymous (GA), financial counseling, and the Maryland Voluntary Exclusion Program (VEP) were offered to all clients. By the conclusion of FY2018, four Peers were employed covering each of the state's regions.

TRAINING AND EDUCATION IN FY2018

OVER 1,800 participants from every jurisdiction in Maryland attended one or more of the 37 clinical training and education programs conducted by The Center, both in-person and online programs. The 6th Annual Maryland Conference on Problem Gambling, held on June 15, 2018,

increased attendance by 7% drawing 382 health care professionals representing 21 Maryland jurisdictions. A new 12-hour/Two-day Provider training was developed in collaboration with BHA to ensure capability of providers and private practitioners across the state participating in the Problem Gambling Reimbursement Program providing "no cost treatment" to Maryland residents. Faith-based initiatives were expanded in FY2018 in collaboration with the Maryland Council on Problem Gambling (MCPG) and BHA with the development of a Clergy/Lay Minister Problem Gambling Certification training program.

PREVENTION

The prevention efforts of The Center in FY2018 focused on the continuation of collaborating with local health department prevention offices statewide. Four county prevention offices were involved in the Disordered Gambling Integration (DiGIn) Prevention Project and others began to integrate problem gambling prevention programming and materials with their local alcohol and substance abuse prevention strategies. In addition, the MD-Smart Choices: Youth Problem Gambling Prevention Program expanded to serve double the number of schools during a four-year period. The Center's Prevention Manager assisted Maryland jurisdictions with the development of strategic plans that integrated problem gambling prevention with the work of alcohol and substance use disorder prevention offices across the State. In addition, 2,150 problem gambling prevention materials were distributed by prevention staff across jurisdictions at health fairs, trainings, coalition meetings, libraries, schools, county agencies, and other community events/ locations. 1,348 Maryland residents were reached through local presentations.

PUBLIC POLICY

Per legislation, the Center developed and submitted an in-depth report in December 2017 of FY17 Public Awareness and Outreach efforts to further educate legislators of overall awareness activities within their respective jurisdictions. The Center, in concert with the Legal Resource Center for Public Health Policy and the Public Health Law Clinic at the University of Maryland Francis King Carey School of Law (Law School), also actively scanned public policy issues arising in Maryland around responsible and problem gambling. The Legal Resource Center participated in regularly scheduled meetings with behavioral health organizations to stay abreast of current issues and distributed the Center's annual Report to legislators to ensure problem gambling remained in relevant conversations with key stakeholders. The Center also engaged with stakeholders including the Maryland Lottery and Gaming Control Agency (MLGCA), BHA, Problem Solving Courts and Casino representatives to discuss best and therapeutic practices for gambling in Maryland.

RESEARCH

The Research Program on Gambling has advanced its research agenda with a continued focus on the identification and prevention of problem gambling behavior and attendant consequences for public health. Research projects have included: Prevention and Etiology of Gambling Addiction in the US (PEGASUS); Impact of gambling on the social structure in Maryland; Prince George's County Gambling Behavior Assessment; Analysis of Maryland Helpline data; Evaluation of the effectiveness of peer support programs; Monitoring and evaluation of Maryland Coalition of Families (MCF) support services; Evaluation of the Faith Based Gambling Initiative; Assessing gambling in vulnerable populations; Evaluation of gambling behavior in Maryland (Prevalence Study); Capacity building; Outreach; and strategic collaborations. These efforts serve as the foundation for a bold research agenda that will contribute to the understanding of gambling disorder, inform prevention and treatment efforts throughout Maryland, and promote scientific research on gambling behavior.



HISTORY AND CONTEXT

Fiscal Year 2018 was the sixth year of operation of the Maryland Center of Excellence on Problem Gambling (the Center). The Center is part of the University of Maryland School of Medicine, Department of Psychiatry, with its Research Division located within the Department of Epidemiology and Public Health.

Mission: The Center promotes healthy and informed choices regarding gambling and problem gambling through public awareness, training and education, prevention, technical assistance to the behavioral health care system, peer recovery support, research and public policy. It does so by working closely with appropriate state stakeholders and bringing together experts from a variety of disciplines including psychiatry, medicine, epidemiology, social work, law and others.

The Center began operation on July 1, 2012 to help address the expansion of legal gambling availability within Maryland. Legislation authorizing this expansion also provided for a problem gambling fund to be established and administered by the Maryland Department of Health (MDH; formerly the Maryland Department of Health and Mental Hygiene) Behavioral Health Administration (BHA; formerly Alcohol and Drug Abuse Administration). The fund was designated to provide support for problem gambling research, public awareness, training, helpline services and prevention.

The primary goal of the Center is to minimize the risks and problems associated with gambling in the State of Maryland. In FY2018, BHA, in collaboration with Beacon Health Options, Inc., began providing reimbursement to qualified Maryland licensed agencies, organizations and private practitioners for the treatment of individuals and their families dealing with problem gambling behavior. This "no cost treatment" initiative, removes the barriers to treatment for anyone dealing with the effects of problem gambling/gambling disorder. A network list of qualified problem gambling providers is maintained and readily available to Maryland residents. This Provider Network List grew from approximately 45 providers to more than 80 providers in FY2018.

The Center's Research Division conducts several different studies and projects to uphold the goals and mission of the Center through increasing the understanding of gambling behaviors, impacts of gambling on the population, and identification of evidence-based approaches to mitigate harmful impacts of gambling. The 2017 Statewide Gambling Prevalence in Maryland Survey was completed this fiscal year and results will be released in FY2019.

The Center, with support and funding from BHA, also implemented Gambling Peer Recovery Support Specialist services. The role of Gambling Peers focuses on helping individuals and families impacted by the negative consequences of Problem gambling and connecting them with Maryland recovery and treatment resources.

KEY CENTER ACCOMPLISHMENTS FY2018

- Completed 2017 Maryland Statewide Gambling Prevalence Survey.
- Implemented FY2018 year-long Statewide Multi-Media Campaign
- Helpline Total Volume (calls, text, chat) increased 12%.
- Implemented and staffed the Gambling Peer Recovery Support program.
- Provided problem gambling clinical training to more than 840 unique individuals
- Prevention efforts continued collaboration with local health department prevention offices throughout the state.
- Developed a Sports Betting educational brief highlighting the definition and surveyed national gambling legislation with potential impact to Maryland legislation.

PUBLIC AWARENESS

The Center's public awareness efforts remain a key focus on reducing the stigma of problem gambling and informing Marylanders of help and treatment resources that are available to decrease any harm that gambling may be creating in their lives. Key FY2018 Public Awareness initiatives included the Statewide Multi-Media Campaign, expanding awareness of the Center's Gambling Peer Recovery Support program and the availability of "no cost treatment" within Maryland for individuals and their families.

FY2018 STATEWIDE MULTI-MEDIA CAMPAIGN

In collaboration with MedSchool Maryland Productions (MMP) and developed with supplemental funding provided by Maryland Department of Health Behavioral Health Administration (BHA), the Center launched a comprehensive statewide Problem Gambling Awareness Campaign. The campaign messaging was disseminated through

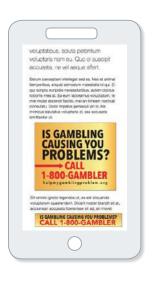
both traditional and digital media outreach outlets, raising general awareness of problem gambling and highlighting "no cost treatment now available" for Maryland residents.

The campaign outreach targeted every jurisdiction and audience market within the state by using traditional advertising outlets of billboards, movie theaters, television, radio and digital outreach, including: Google AdWords, Facebook, Instagram, YouTube and Geo-Fencing around casinos. During this yearlong campaign, over 33 million Google Adwords impressions and over 113 million total campaign impressions were recorded, resulting in over 307,000 visits to the help seeker website and over 606 calls to the Helpline.

Detailed campaign results:

- 97 billboards/posters were positioned in key areas around the state with concentration in casino jurisdictions.
- Ad messaging appeared on 11 movie theater screens.
- 5,138 PSA radio spots ran on 11 different stations.
- 502 TV PSA spots ran on four channels covering the state.
- Over 127,000 Clicks on Google Adwords to the help seeker website were recorded.
- Facebook and Instagram ads recorded 31,919 clicks.
- Total views to YouTube ads to date exceed 700,000 views.
- Geofencing (advertisements sent to mobile devices) was focused in or around Maryland casinos and recorded over 490,000 impressions resulting in 1,363 clicks to the help seeker website.





ADDITIONAL ANNUAL NATIONAL CAMPAIGNS

State and national awareness campaigns are a significant component for the Center's awareness activities, and include specific messaging for web postings, social media messaging, directed email communications, and flyers/posters for distribution within communities.

September 2017 - National Recovery Month

Sponsored by SAMHSA/Substance Abuse and Mental Health Services Administration and in collaboration with BHA, this annual campaign brings awareness to the stigma of mental illness, substance use disorders and problem gambling, encouraging those who need treatment to get the resource services they need.

The Center created and distributed over 1,000 materials promoting this campaign and 'have a conversation' with Gambling Peer Recovery Support Specialists to over 675 residents and health care professionals across 15 jurisdictions. An e-marketing campaign reached over 2,500 Maryland clinicians. In addition, specific web and social media messaging was created and reached over 35,300 views.

December 2017 - National Holiday Lottery Campaign

Each year, the Center actively participates in the national awareness campaign to NOT gift lottery tickets to children under 18. This campaign is in collaboration with the National Council on Problem Gambling (NCPG) and other Lottery/Gaming agencies, including the Maryland Lottery and Gaming Control Agency.

The Center created specific holiday materials and distributed them to over 350 residents and health care professionals. An e-marketing campaign reached over 2,500 Maryland clinicians. In addition, specific holiday web and social media messaging was created and reached over 35.100 views.

March 2018 - Problem Gambling Awareness Month

Problem Gambling Awareness Month is a grassroots public awareness and outreach campaign created and sponsored by the National Council on Problem Gambling to

educate the general public and health care professionals about the warning signs of problem gambling and to raise awareness about the help and resources available within the state. The Maryland Lottery and Gaming Control Agency (MLGCA), BHA and the Center participated on March 7th as the Maryland House of Representatives recognized March 2018 as Problem Gambling Awareness Month in the state of Maryland.





The Center's Peer Recovery Support Program was a key highlight for the month's initiatives, encouraging a conversation with a Peer Recovery Support Specialist who can help individuals navigate resources and remove barriers on the road to recovery from gambling problems. Additional highlights included:

- Over 25,000 materials (brochures, flyers, cards and other handouts) were produced and distributed during the month.
- E-marketing campaign was initiated to over 5,000 behavioral health professionals.
- All DiGIn participating organizations representing six jurisdictions developed and participated in various awareness activities, including facility billboards, social media posts, and community events.
- Dedicated outreach to over 80 providers and private practitioners participating in the Provider Referral Network Directory.
- Presentations to, and participation in, 15 awareness events that promoted "Have the conversation" and PGAM to over 1,300 participants.
- Training to over 300 clinicians and lay clergy in 10 clinical programs.
- Sponsored by the MLGCA, over 600 public service announcements (PSAs) and over 1,400 radio spots ran on local television and AM/FM radio channels promoting problem gambling awareness and the problem gambling Helpline number.
- Also, in collaboration with MLGCA, the Center provided a back-of-house awareness table at the MGM National Harbor Resort and Casino, engaging in conversation with 280 employees.
- Billboards were also strategically placed in key Casino jurisdictions.
- The Help seeker website helpmygamblingproblem.org received over 37,000 visits this month.

COMMUNITY EVENTS AND PRESENTATIONS

Working with agencies, organizations and community advocates in ten jurisdictions across all four state regions, the Center staff presented to 31 community and client groups, engaging in discussion about the risks of gambling with over 900 total residents. In addition, Center staff interacted with over 2,000 Marylanders in 16 events, having a one-on-one conversation about guidelines for low-risk, responsible gambling; Gambling Peer Recovery Support Specialists; and "no cost treatment" now available in the state for individuals and their families.





FAITH-BASED AWARENESS

The Center, in collaboration with the Maryland Council on Problem Gambling (MCPG), continued outreach efforts to faith and spiritual communities as "first time responders" in supporting individuals, families and communities in their understanding of low and high risk gambling; increasing public awareness about problem gambling; expanding awareness to health and wholeness ministries in communities they lead and serve; and increasing awareness of problem gambling treatment and peer recovery support resources.

Intensive faith-based training was offered three times in FY2018 in two different formats: two 24-hour Clergy Lay Ministers Problem Gambling Credential Training programs and one 12-hour lay-ministers training. A total of 35 participants were trained in these

programs from Baltimore City, Baltimore County and Prince George's County, representing a wide range of faith and spiritual demographics.

Community health fairs hosted by faith organizations provided an opportunity for additional problem gambling awareness. FY2018 events included: problem gambling and SBIRT screenings at the Muslim Community Health Clinic; problem gambling outreach at St. Timothy's Christian Baptist Church Community Health and Job Fair; and mental health awareness day table-talk at the Bridgeway Church.

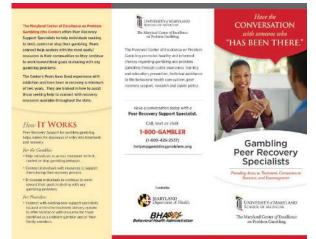
AWARENESS MATERIALS

The Center continues to develop and freely distribute flyers, posters, rack cards and brochures. New materials are created around specific topics (such as suicide and problem gambling) and targeted populations (such as veterans, youth, older adults). In FY2018, over 40,000 cards and brochures were produced and distributed to residents and health care professionals at events, presentations, clinical trainings and mailed on request. A new trifold brochure was also developed to highlight the Center's Peer Recovery Support program and to promote "have the conversation with someone who has been there." In addition, 50,000 awareness flyers/posters were printed and distributed at events, presentations and clinical trainings.

INTERNET ONLINE

Total web traffic in FY2018 more than doubled over FY2017 recording over 390,000 visits. This significant increase is attributed to the concentrated Statewide Multi-Media Campaign. (See Figure 1).

Of this total traffic, 93% was reported on the help seeker website *helpmygamblingproblem.org* which is designed to specifically meet the needs of help seekers. (See Figure 2) Improvements to the help seeker site included messaging emphasizing "no cost treatment now available" with an enhanced Find a Counselor page within the site and the implementation of a self-assessment tool.



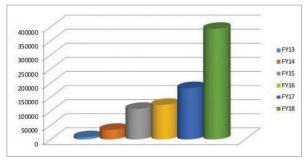


Figure 1: Total Website Visits FY2013 - FY2018

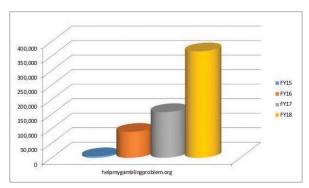


Figure 2: Total Help Seeker visits to dedicated website helpmygamblingproblem.org

The main repository for The Center's resources, *mdproblemgambling.com*, also reported an increase in traffic.





helpmyproblemgambling.org

mdproblemgambling.com

The Center also supports an additional seven (7) websites, developed with targeted messaging around specific public awareness campaigns to special populations.



princegeorgesgambling.org



gamblesafewomen.org



aboveallodds.org



asiangamblingsos.org



Baltimoregambler.org



Baltimorepromgamble.org



Baltimoredicezombies.org

PUBLIC SERVICE ANNOUNCEMENTS (PSAS)

The Center maintains a library of over 50 PSAs and two (2) documentaries that encompass a variety of awareness messaging focused on topic, age group and/or special population. In FY2018, many PSAs were enhanced to include "no cost counseling now available" messaging and used within the state-wide campaign. In addition to, and in collaboration with the Maryland Lottery and Gaming Control Agency (MLGCA), five new PSAs were created focusing on lottery and scratch-off play and filmed in a convenience store with actual customers.

MEDIA REQUESTS

In collaboration with BHA and the University of Maryland, the Center's Program Director responded to three requests for interviews by local TV and radio stations covering topics on the impact of gambling and problem gambling; signs of problem gambling; available treatment resources within the state; the Maryland VEP program; and the Center's Peer Recovery Support program.



TREATMENT AND INTERVENTION SERVICES

IMPROVING THE PROVISION OF NO COST TREATMENT FOR GAMBLING PROBLEMS

Data from Medicaid providers continues to indicate that problem gambling is being addressed within the existing behavioral health programs. In FY2018, 2,242 clients in treatment for a substance abuse disorder had gambling problems identified and addressed as a co-occurring issue, a 38% increase from FY2017 (n=1,623). Among Mental Health Providers, 33 clients were treated for a primary diagnosis of gambling disorder.

In FY2018, the program to reimburse behavioral health providers and private practitioners for provision of "no cost treatment" to Maryland residents for problem gambling, regardless of insurance or income status, was fully implemented through a collaboration between the Behavioral Health Administration (BHA), Beacon Health Options, Inc. (Beacon) and the Center. This reimbursement includes out-patient and residential services for both the gambler and/or concerned others. In 2nd quarter FY2018, a forum was held for behavioral health providers in collaboration with Beacon Health Options and BHA to educate providers on the reimbursement program. At the end of FY2018, 88% of providers (n=89) listed on the Maryland Problem Gambling Provider Referral Network Directory were participating to provide "no cost treatment" to their clients. The Center continues its awareness to providers to participate in this reimbursement initiative and to educate Maryland residents on the availability of treatment for their gambling problems at no cost.

As reported by Beacon, providers in the reimbursement program billed for fifty-four (54) Maryland residents from various jurisdictions across the state. Of these residents, 94% (n=51) were the problem gambler, and 6% (n=3) were family members. All indicated financial debt as a crucial factor in seeking no-cost treatment: 87% borrowing money from family friends/others; 69% indicating credit card debt; 48% unable to pay bills; and 43% dipping into their savings accounts. In addition, the Center's Peer Recovery Support Specialists referred a total of 39 help seekers in FY2018 to "no cost treatment" providers. Of those, 36% (n=14) were warm-transferred to the provider; 64% (n=25) were given provider information; and 77% (n=30) were confirmed to attend at least the first treatment session.

INTEGRATED INTERVENTION APPROACHES FOR COMMUNITIES

During FY2018, the Center continued to reach out to agencies, organizations and private practitioners in the behavioral health field as a means to increase the capability to provide treatment for problem gambling and gambling disorder. The Center's clinical staff provides technical assistance to assist in addressing problem gambling awareness, prevention, capacity building, and treatment strategies. In addition, the Center continues to provide in-service and clinical training throughout the year (see Training section for details). The Center conducted 28 presentations and in-service training programs to over 1,100 total attendees in FY2018.

The Center continues its participation in the Maryland Alliance for Responsible Gambling (MARG). MARG, sponsored by the Maryland Lottery and Gaming Control Agency (MLGCA), is the statewide partnership for responsible gambling focused on minimizing the potential harm that may arise from gambling behavior and coordinating and maximizing resources to address problem gambling in Maryland. The Alliance members include representatives from MGLCA, Maryland Department of Health Behavioral Health Administration (BHA), Maryland Department of Public Safety and Correctional Services, Maryland State Senate, Maryland House of Delegates, Maryland Council on Problem Gambling, Maryland's six casinos, and other interested nonprofit organizations serving individuals with gambling addiction. MARG meetings were scheduled on a quarterly basis throughout FY2018.

DISORDERED GAMBLING INTEGRATION (DIGIN) PROJECT

Research continues to indicate that individuals treated for substance abuse and mental health disorders have higher rates of problem gambling than the general population. Launched in FY2015, the goal of DiGIn is to address the impact of gambling on recovery, health and well-being by integrating the spectrum of problem gambling treatment and prevention systems into existing substance abuse and mental health protocols. In FY2018, the third year of the program, seven agencies and organizations located in each region of the state, including four casino jurisdictions, participated in the program which included four in-person and four on-line meetings.

The participants provided the following feedback:

- Identify the key tools in the DiGIn program that were most useful to your organization for integrating problem gambling into your existing protocols:
 - ✓ Administrative policy development
 - ✓ Psychoeducational materials for clients
 - ✓ Case consultation calls
- What problem gambling training did you find most helpful to clinical, peer specialists, and support staff?
 - ✓ Problem Gambling Screening and Assessment
 - ✓ Integration of problem gambling impact into treatment plans
 - Education on the impact of problem gambling on substance use and mental health recovery

After three years of formal collaboration with nine agencies and organizations across the state, the program concluded in FY2018.

RESPONSIBLE GAMBLING COLLABORATION: VOLUNTARY EXCLUSION PROGRAM (VEP)

The Maryland Voluntary Exclusion Program (VEP), operated by the Maryland Lottery and Gaming Control Agency (MLGCA), is available for individuals who identify gambling as a problem. VEP continues to be an effective self-assessment tool available to those individuals who find themselves at-risk in any of the Maryland gaming venues (six Maryland casinos, six of Maryland's largest Bingo Halls, and the Maryland Lottery) to limit, control or stop their gambling behavior. The Center worked collaboratively with the MLGCA and BHA on the development of and revisions to the VEP Healthy Lifestyle Choices Workbook (the Workbook) which provides the individual the opportunity to identify their personal risk factors for potential future gambling problems.

Individuals who seek removal from the VEP process, after their initial two years on the program is completed, are required to complete the Workbook and meet with a counselor for a review of this self-assessment at no cost for Maryland residents. The MLGCA refers the individual to the Center, who then refers the individual to a trained problem gambling counselor. In FY2018, 18 counselors in 10 jurisdictions (including four of the six casino districts) were on the referral list. The Center received 91 requests for removal, with 81 individuals completing the process. The counselor then meets with the individual to review the workbook, which allows the opportunity for the individual to potentially develop a relationship with the counselor.

The VEP is a valuable resource for the help seeker in their first step in harm reduction of gambling behavior. From the Maryland Helpline 1-800-GAMBLER, a total of 137 help seeker referrals were made to VEP in FY2018. In addition, the Center's Peers also refer individuals to VEP and assist them in providing support to fill out an application to enter VEP. In FY2018, there were ten referrals by Center Peers to the program. For nine of the ten referrals, Center Peers accompanied individuals to the casinos to complete the application process.

The Center will continue to collaborate with MLGCA and BHA to ensure that VEP continues to be one successful tool for gamblers on the road to recovery.

MARYLAND PROBLEM GAMBLING PROVIDER REFERRAL LIST

A main priority for the Center is to continue to connect help seekers with resources to treatment and recovery within their communities. The Maryland Problem Gambling Provider Referral List (the Providers List) is maintained and updated by the Center and utilized as a referral source for callers to Maryland's Problem Gambling Helpline, 1-800-GAMBLER, in addition, an interactive referral directory is also available on the Center's help seeker website – helpmygamblingproblem.org.

In FY2018, a total of 101 providers were listed on the Center's Provider List, representing 18 jurisdictions in Maryland, including the six (6) casino jurisdictions (Allegany, Anne Arundel, Baltimore City, Cecil, Prince George's and Worcester) (see Figure 3). Of these providers, 88% (n=89) were participating to provide "no cost treatment" to their clients.

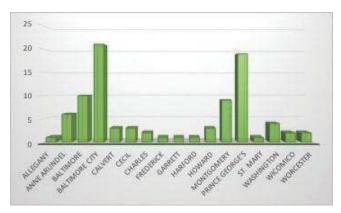


Figure 3: Providers in Referral Network by Jurisdictions

The Center continues to outreach to organizations and private practitioners to be listed on the Provider list; expand participation to cover every jurisdiction within the state; provide technical assistance as needed; and encourage participation in the problem gambling reimbursement program.

HELPLINE 1.800.GAMBLER

In FY2018, Total Help seeker Volume (Calls, Text and Chats) totaled 606, a 12% increase on total volume over FY2017 (n=539) (see Figure 4). Help seeker calls totaled 544, representing a 21% increase over FY2017 (n=452), due in part to the Statewide Public Awareness Campaign which advertised the Helpline number and website through traditional and digital outlets.

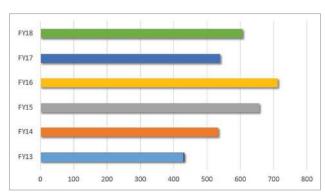
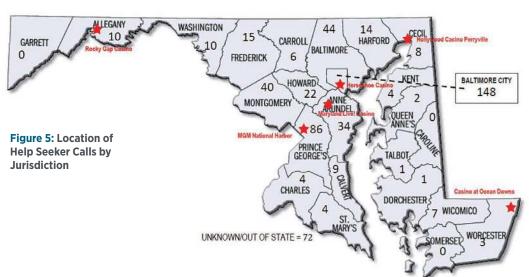


Figure 4: Help Seeker Total Volume (calls, text, chats)

Helpline Caller Characteristics and Demographics

In FY2018, 53% of Helpline calls (n=289) were recorded in casino jurisdictions representing a 7% increase from FY2017 (see Figure 5). Problem gambling ads in the Geo-fenced areas

received over 1,363 clicks. This increase in calls highlights the positive effects of a concentrated awareness campaign throughout the state and further demonstrates the need to enhance responsible gambling messages at other points of gaming services, such as lottery outlets and bingo halls.



Caller Age

In FY2018, callers in age group 65 plus showed an increase over FY2017. Callers in age group 18-24 and 25-34 also increased. Callers in age group 45-54 decreased, with callers in age groups 35-44 and 55-64 remaining consistent from the prior year. Three callers in age group 13-17 were also recorded in FY2018 (see Figure 6).

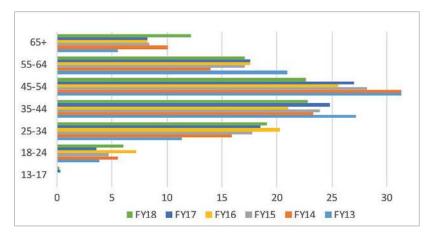


Figure 6: Helpline Callers by Age Group FY13-FY18 (Percentage)

Primary Gambling Problem

Casino slots and table games continue to be the primary gambling problem reported by Helpline callers representing 81% of total callers (see Figure 7). Internet gambling also increased from the prior fiscal years. Another trend depicted was sports/horse betting, reporting 16% in FY2018 from 2% in FY2013. This trend is supported by the recent legalization of sports betting in surrounding states and discussions of pending legislation in Maryland.

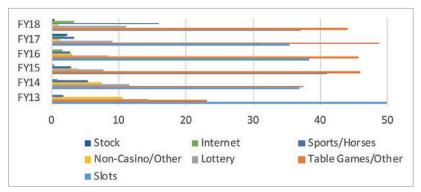


Figure 7: Primary Gambling Problem Reported by Helpline Callers FY13-FY18 (Percentage)

Caller Ethnicity

In FY2018, European Americans and African Americans continue to be the majority of Helpline calls (93%) (see Figure 8). Other ethnicities increased slightly from FY2017, while Latino and Asian American callers decreased.

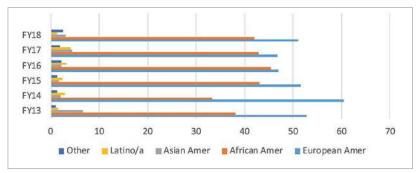


Figure 8: Helpline Callers by Ethnicity FY13-FY18 (Percentage)

Primary Source of Helpline Number

In FY2018, as reported in past years, electronic media (40%) was the primary source of information regarding the Problem Gambling Helpline. This trend is further supported by more than double the increase of visitors in FY2018 to the Center's websites, with total web traffic exceeding 390,000 visits. Maryland casinos as the source of Helpline information increased 3% over the prior year (see Figure 9).

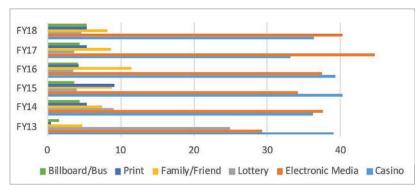


Figure 9: Where Callers Learned of Helpline FY13-FY18 (Percentage)

Who is Calling

The majority of calls to the Helpline were from the gamblers themselves, representing 80% of total help seekers in FY2018. Calls from a parent increased this fiscal year which may be attributed to the availability of "no cost treatment" for family members, as well as peer support through the Maryland Coalition of Families (see Figure 10).

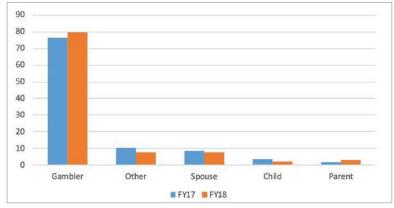


Figure 10: Person Who Is Calling FY17-FY18 (Percentage)

Helpline Caller Referrals

In FY2018, the top three referrals requested by help seekers were: Peer Support (24%), Gambler's Anonymous (23%) and Treatment Providers (20%). Internet resources and Maryland Voluntary Exclusion Program (VEP) were also frequently requested (see Figure 11).

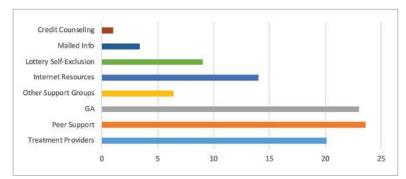


Figure 11: FY18 Treatment Referrals (Percentage)

PEER RECOVERY SUPPORT

In FY2018, the Center began to expand its Peer Recovery Support Specialist (Peer) program. The Center's Peers have lived experience in recovery are trained in how to assist those seeking help with gambling behavior. Peers help Maryland residents limit, control or stop their gambling behavior by connecting them to the resources they need, including "no-cost treatment," individual support and encouragement, and other resources to help them to achieve their goals.

HELP SEEKERS SERVED

Peers receive referrals to individuals seeking support for their gambling problems from the Center's Helpline and community behavioral health providers. In FY2018, 81 individuals were assisted by the Peers. Referral data tracked includes referrals to Treatment Providers, Gamblers Anonymous (GA), Maryland Voluntary Exclusion Program (VEP), and Financial Counselors (see Figure 11). Of the total referrals to treatment, 39 help seekers in FY2018 were referred to "no cost treatment" providers, with 77% (n=30) being confirmed as attending at least the first treatment session.

PEER AGENCY/COMMUNITY OUTREACH

In FY2018, Peers provided outreach to 49 agencies and organizations across Maryland providing awareness of the Center and its resources; connecting with existing peer support specialists located within their treatment delivery system; and offering assistance within their client base and community, to provide resources for those identified as having a gambling disorder. In addition, Peer staff participated in 11 community events and interacted with over 280 individuals offering information and resources regarding Peer recovery support.

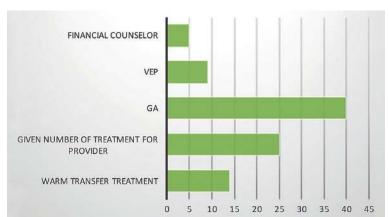


Figure 12: Referrals to Resources by Peers

COLLABORATION WITH THE MARYLAND COALITION OF FAMILIES (MCF)

In 2nd Quarter FY2018, the Center, in collaboration with the Maryland Department of Health Behavioral Health Administration (BHA) and the Maryland Coalition of Families (MCF), began a Peer Support program specifically for family members struggling with problems due to gambling. This expansion of MCF services builds on its history in supporting families with behavioral health needs.

The Center provided three training programs to a total of 60 attendees on gambling awareness and problem gambling as an addiction, focusing on the family dynamic and problem gambling. The Center Peers also worked collaboratively on a one-on-one basis with MCF family peers to provide the support they needed to assist family members within the community, providing two direct referrals to MCF for family support.

TRAINING AND EDUCATION

Outreach through clinical training and education programs across the state continues to be a key initiative for the Center. These programs build the capacity to address and treat problem gambling among mental health, substance use, other health care, social services and prevention providers. In FY2018, over 1,800 total participants from every jurisdiction in Maryland attended one or more of the 37 clinical training and education programs conducted by the Center, offered in-person and online.

ANNUAL MARYLAND CONFERENCE ON PROBLEM GAMBLING

The 6th Annual Maryland Conference on Problem Gambling, sponsored by BHA, was held on June 15, 2018 at the BWI Airport Marriott. This statewide learning forum increased attendance by 7% over the 2017 conference attendance, bringing together 382 attendees representing 21 Maryland jurisdictions to better understand and address the impact of gambling and problem gambling on individuals, families and communities.

The theme of the one-day conference, "Building Opportunities for Treatment and Recovery," was reflected in four keynote presentations and one panel by local and national experts highlighting collaborative approaches to research, treatment, prevention and recovery. In addition, 10 organizations offering services throughout the state shared their community resources during conference breaks.



The Center offered a total of 25 in-person clinical problem gambling training programs across all regions with 840 unique individuals attending, representing a 4% increase over FY2017. Of these individuals, 59% attended problem gambling training for the first time (n=495).

These programs included:

- Four days of a six-day, 30-hour in-service program requested by the Anne Arundel County Health Department (launched in FY2017).
- One 30-hour/Four-day in depth basic program held in Montgomery County.
- Three 12-hour/Two-day Provider Problem Gambling Clinical Trainings, held in Allegany,
 Anne Arundel, and Prince George's counties. This provider training was created to
 support the capability of providers participating in the BHA sponsored Problem Gambling
 Reimbursement program for "no cost treatment" to Maryland residents.
- Five in-service clinical programs requested by agencies in five jurisdictions (Baltimore, Baltimore City, Howard, Prince George's and Washington).
- Six advanced one-day programs in four jurisdictions (Allegany, Anne Arundel, Calvert, Talbot) covering a variety of topics to increase treatment strategies.





ONLINE TRAINING

In FY2018, participation increased in the Center's online training programs which included the monthly live webinars and its two-part clinical on-demand programs, both hosted on the Center's main website.

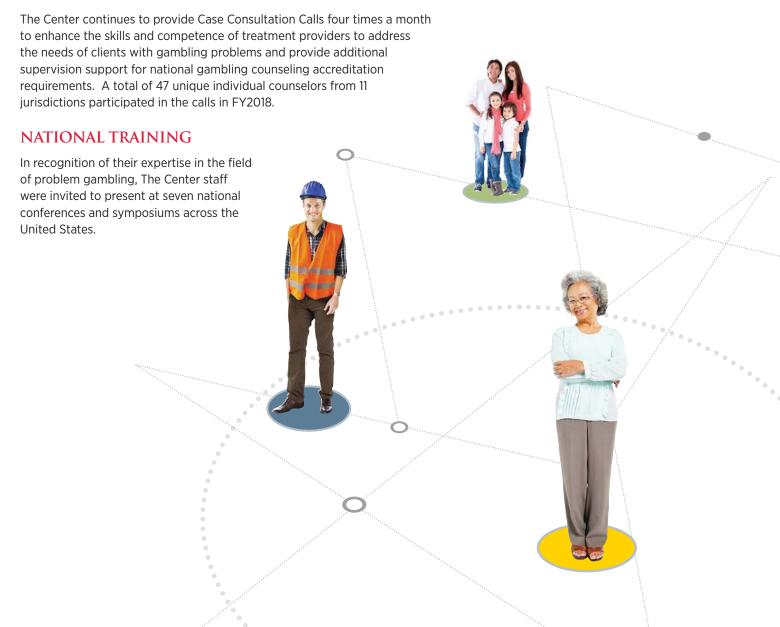
Live Webinars

The Center continued its presenter-led, one-hour Clinical Problem Gambling Webinar Series. A total of 661 participants attended the ten webinars, which covered topics of prevention, treatment and recovery.

On Demand

The Center's two on-demand training programs (launched in FY2016), Integrating Problem Gambling into Substance Abuse Disorder and Mental Health Treatment, Part One and Two, hosted on *mdproblemgambling.com* are designed for staff at any level within state health departments/organizations. These programs further expand the commitment to integrate gambling counseling within existing behavioral health programs. As of the end of FY2018, over 300 unique individuals had completed the on-demand training.

CASE CONSULTATION CALLS



PREVENTION

The Center's prevention efforts in FY2018 focused on the continued collaboration with local health department prevention offices throughout the State to increase community awareness. Youth gambling awareness was also a key focus through the Maryland Smart Choices youth prevention program.

DISORDERED GAMBLING INTEGRATION (DIGIN) PREVENTION PROJECT

FY2018 was the third and final year of the Disordered Gambling Integration (DiGIn) Project. From its inception, the mission of DiGIn was to increase the capacity of behavioral health care treatment and prevention programs to address gambling and problem gambling through enhanced screening, assessment, awareness, intervention, recovery and health promotion strategies, and to make the impact of gambling behaviors on recovery, health and well-being a relevant topic of conversation within communities, health care and behavioral health organizations.

Four health departments participated in the DiGIn Prevention Program in FY2018: Anne Arundel County, Dorchester County, Prince George's County and Washington County. Their focus included:

- Integrating problem gambling prevention information and materials into existing prevention programming;
- Creating strategic plans with local jurisdictions to integrate problem gambling prevention with current alcohol and substance abuse prevention strategies;
- And increasing the number of prevention staff trained in problem gambling prevention within their local jurisdiction.

YOUTH PROBLEM GAMBLING PREVENTION STRATEGY: SMART CHOICES

By the end of FY2018, the Maryland Smart Choices: Youth Problem Gambling Prevention Program (Smart Choices) had expanded to serve double the number of schools from the program's inception in FY2014. Smart Choices, implemented in collaboration with the University of Maryland School of Medicine Center for School Mental Health (CSMH), was designed to measure middle school students' knowledge and attitudes towards gambling, the effectiveness and acceptability of the Program, as well as student-level demographics and gambling behaviors.

The Smart Choices curriculum encouraged youth to make positive decisions regarding risks associated with activities and games. Students participating in Smart Choices responded favorably when asked about their perception of the program. Smart Choices was implemented in ten schools, nine middle schools and one high school in FY2018.

Additional FY2018 data on the Smart Choices program:

- · Most students participating in Smart Choices were African-American and identified as low income.
- Trend analysis revealed low student involvement in gambling activities with 70% or more responding they "never gambled."
- Of those reporting experience with gambling, the majority responded initial contact was between 11 and 13 years old, gambling took place at home, and the amount of money spent was between \$10-\$19.
- The majority of students reported observation of adult gambling behaviors.

ADDITIONAL PREVENTION OUTREACH

- A total of 33 meetings with prevention staff were held in seven local jurisdictions including 83 unique individuals.
- A total of seven jurisdictional strategic plans were created to integrate problem gambling prevention with the work of alcohol and substance abuse prevention offices across the State.
- 2,150 problem gambling prevention materials were distributed by county prevention staff at health fairs, trainings, coalition meetings, libraries, schools, county agencies, and other community events/locations.
- 1,348 people were reached through local presentations or exhibits
- A collaboration was developed with a private practice counselor in Baltimore specializing in serving the Asian population, for input into the development of materials for the Asian population.



PUBLIC POLICY

The Center, in concert with the Legal Resource Center for Public Health Policy (LRC) and the Public Health Law Clinic at the University of Maryland Francis King Carey School of Law (Law School), actively monitored public policy issues arising in Maryland and around the country. impacting responsible and problem gambling.

MARYLAND GAMBLING INITIATIVES

The LRC continued to produce weekly monitoring of proposed gambling legislation in Maryland during the Maryland Legislative period, January-March. In the 2018 legislative session, a total of 51 bills with reference to gambling were tracked within the House and Senate. Of special note was HB1014 on Sports Wagering that did not pass, and HB1378/SB900 prohibiting the operation of fantasy sports machines outside of casinos which did pass.

The Center, in collaboration with the Maryland Behavioral Health Administration (BHA) and LRC, presented information on sports gambling to the joint Committee Hearing on Gambling Oversight. Problem Gambling Awareness Training was conducted to 20 court personnel for the Office of the Courts. A one-page overview of sports betting was developed and distributed, highlighting the definition, proposed national legislation and potential impact to Maryland legislation.

Per legislation and in collaboration with BHA and the LRC, the Center developed and submitted an in-depth FY2017 Public Awareness and Outreach Report, with a focus of activity by jurisdiction.

PARTICIPATION IN POLICY FORUMS

The Center and LRC participated in regular meetings with behavioral health organizations to stay abreast of current issues and to ensure problem gambling remained in relevant conversations with key stakeholders. The Center and the LRC also engaged with stakeholders including the Maryland Lottery and Gaming Control Agency (MLGCA), BHA, Problem Solving Courts, and Casino representatives to discuss best and therapeutic practices for gambling in Maryland.

NATIONAL LEGISLATIVE MONITORING

To inform decision making in the state, the LRC prepared detailed summaries of laws across the country, recent policy changes and court decisions at the federal level, and potential/proposed legislation on topics such as sports betting. Summaries and researched topics included changes to federal regulation of gambling; expansions to gambling policies in Maryland and surrounding states; legalization and regulation of fantasy sports and sports betting; consumer protections; decriminalization of petty gambling offenses; voluntary exclusion programs; and problem gambling funding.



RESEARCH

RESEARCH OVERVIEW

In FY2018, the Research Program on Gambling (RPG) affiliated with the Maryland Center of Excellence on Problem Gambling (the Center) advanced its research agenda with a continued focus on the identification and prevention of problem gambling behavior and attendant consequences for public health. The following report details the programs' progress and achievements over the past year including:

Prevention

Prevention and Etiology of Gambling Addiction in the US (PEGASUS): The PEGASUS study, the RPG's flagship research endeavor, is a prospective cohort study designed to identify risk and protective factors related to problem gambling. A total of 1,346 participants from across Central Maryland have been enrolled in this cohort since the study commencement September 2015. Follow-up data has been collected since January of 2017.

Impact

Impact of gambling on the social structure in Maryland: In order to assess the social impact on gambling, during FY2018 the RPG has reviewed existing literature on the impact of gambling in the following areas: vulnerable populations, mental health, adolescent health, economics, and family.

Prince George's County Gambling Behavior Assessment: Prior to the opening of the MGM Casino in National Harbor, the RPG completed investigation for an assessment of community attitudes and behaviors. Results indicate that participants living in the closest proximity to the casino expressed the greatest level of concern on the impact of the new casino.

Monitoring and Evaluation

Analysis of Maryland Helpline data: The RPG has been monitoring helpline data to establish the average number of calls per-month. During FY2018, it was decided to expand helpline research into evaluating best practices and policies to allocate services to Maryland. The RPG plans to finalize analysis plan and evaluate the effectiveness of the Helpline in FY19.

Evaluation of the effectiveness of peer support programs: The RPG has been tasked with the formal evaluation of the Center of Excellence's Peer Recovery Support programs. In FY2018, the RPG began assessing this program in terms of providing effective and meaningful services to individuals seeking peer support.

Monitoring and evaluation of Maryland Coalition of Families (MCF) support services: The RPG has been tasked with the formal evaluation of the MCF efforts to provide support services for family members of individuals with substance use and/or disordered gambling.

Evaluation of the Faith Based Gambling Initiative: Collaborating with leaders of the Maryland Council of Problem Gambling, the RPG has developed data collection and implementation strategies to formally evaluate the faith based gambling initiative.

Assessing gambling in vulnerable populations: The RPG has focused its efforts on evaluating the impact of gambling on two vulnerable populations: (1) veterans and (2) casino workers. The first project seeks to identify risk factors for disordered gambling that are unique to the veteran population. The second project explores the impact of occupational health and safety for casino workers.

Surveillance

Free State Data Warehouse: The program continues to grow its data warehouse and collaborative partnership with CODES to support assessment of the public health impact of gambling in Maryland. Warehouse data have been used in several projects including an analysis of accidents involving pedestrians around the Horseshoe Baltimore Casino before and after its opening.

Prevalence Study: The statewide follow-up prevalence study took place in 2017 after all approved casinos had opened in order to fully assess impact of expanded casino gambling on problem gambling prevalence in Maryland. Data analysis and a final report were completed in December of 2018. The final report was presented to Maryland's Behavioral Health Administration and Maryland Legislature where it is currently undergoing review.

Capacity Building and Outreach

Research Affiliate Program: The RPG continues its Research Affiliate Program, a networking and outreach program designed to foster research collaborations among faculty, staff and students interested in gambling issues. To date, more than 70 faculty, staff and students have applied for affiliate status.

Visiting Scholars: The RPG hosted one visiting scholar to build expertise in gambling research. Additionally, the RPG mentored two student scholars who examined the impact of gambling on various populations in Maryland.

Strategic Collaborations

A productive research partnership has been developed with the NICHD Analytical and Biophotonics Lab to assess brain activity during a simulated gambling task as part of the PEGASUS cohort study, building on a successful pilot study establishing the feasibility of fNIRS technology for this purpose. Results were analyzed in FY2018 and will be finalized in FY19.

The Research Program on Gambling has advanced several ambitious research projects and collaborations in support of its mission over the reporting period. These efforts serve as the foundation for a bold research agenda that will contribute to our understanding of gambling disorder and inform prevention and treatment efforts throughout Maryland.



PREVENTION AND ETIOLOGY OF GAMBLING ADDICTION IN THE US (PEGASUS)

The PEGASUS Study is a prospective cohort study that broadly recruits participants reflecting the full range of gambling behaviors in the general population, including those who exhibit no problem gambling behaviors and those with varying severities of problem gambling behaviors.

The broad purpose of the PEGASUS Study is to identify factors associated with gambling behavior.

- 1. Identify risk factors for problem gambling.
- 2. Identify factors that protect against developing problem gambling behaviors.
- 3. Evaluate biological correlates of gambling behavior, including brain activation, cognitive correlates, and genetic correlates.

The working hypothesis is that numerous biopsychosocial factors distinguish problem gamblers from individuals who gamble but do not develop pathological gambling behaviors. Identification of correlates (risk and protective) will form the scientific basis for developing evidence-based approaches to mitigating problem gambling behaviors.

The recruitment goal for the study is 1000-1500 adults who are followed longitudinally. Domains being assessed include, among others: demographics and social history, medical history, neuropsychological assessment, psychological assessment, collection of a genetic sample, and functional Near Infra-Red Spectroscopy (fNIRS).

The PEGASUS study received institutional review board (IRB) approval from the University of Maryland Baltimore in April 2015. In an effort to optimally recruit a diverse participant group representing the full range of gambling behaviors, the Research Program on Gambling (RPG) partnered with TrialSpark, which offers customized, targeted advertising on social media to recruit geographically dispersed, hard to identify populations to participate in research projects. TrialSpark has developed a comprehensive, targeted recruitment strategy to help the RPG study team efficiently and effectively identify individuals with a variety of gambling behaviors.

Recruitment for the PEGASUS study began in September 2015 and ended in September 2017. During this two-year period, 3,666 individuals were screened for eligibility and 1,346 were successfully enrolled. Participants range in age from 18-78 years old (mean age = 42.5, SD= 14.1). Approximately 52% of participants are female, and 48% are African American.

Review of baseline data from the project indicate that the RPG is successfully recruiting individuals who represent the full spectrum of gambling behavior. (See Figure 13).

Overall, the cohort has remained stable in participation (Figure 14). Year two follow-up visits for individuals enrolled in FY 2016 began in January 2017. Retention rate to date is 79 percent, with over 900 follow-up visits completed for year two. Year three follow-up visits began in April 2018 and to date; over 196 participants have been seen.

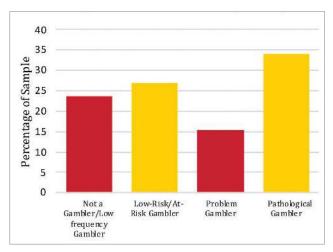


Figure 13: Participation in Lifetime Gambling Activity

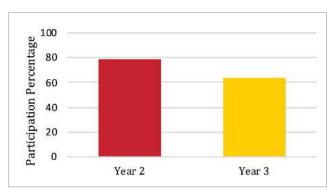


Figure 14: Retention Rates by Year

IMPACT

Impact of Gambling on the Social Structure of Maryland

Literature suggests an increase in avenues by which gambling activities are now available. Increased gambling accessibility has several impacts on a society. During FY2018, the Research Program on Gambling (RPG) investigated the impact of gambling on a nationwide level, focusing on: adolescents, racial disparities (i.e. Asian Americans), mental health, family, and economics. Review of literature in the areas of interest indicate:

- An increased prevalence of adolescents involved in gambling activities.
- In individuals with gambling disorder, racial disparities exist, specifically among individuals with an Asian background.
- Within the treatment, seeking clinical population there is an association between depression and disordered gambling.
- When family members are included in therapy, treatment outcomes are generally better.
- Measuring the impact of problem gambling on economic or financial characteristics is very difficult and little causal evidence is available.

Utilizing knowledge from nationwide research, the RPG anticipates the ability to evaluate the impact of gambling on the state of Maryland during FY19.

Prince George's County Gambling Behavior Assessment

The final Maryland casino opened on the site of National Harbor in Prince George's County, Maryland in December 2016. Adapting the model employed in the Horseshoe Casino Catchment Area Community Assessment completed in FY15 and FY16, the Research Program on Gambling (RPG) administered the Prince George's County Gambling Behavior Assessment in FY17. The community-based survey was designed to assess the prevalence of gambling behavior and to evaluate attitudes about the casino. Participants were recruited from the Prince George's County Fair in early September 2016, as well as from the Oxon Hill Public Library later in 2016. A total of 724 surveys were collected; five percent of respondents reside within Oxon Hill, 71 percent reside within Prince George's County and 18 percent reside outside the county.

The mean age of respondents was 43.5 (SD= 14.7). Approximately 74 percent of respondents were women and 91 percent were African-American, Asian, Native American, or mixed. In terms of gambling behavior, the majority of participants did not disclose disordered gambling tendencies (77%). Participants who resided within closer proximity of the casino, expressed greater extreme concern in each of the concern categories examined, as evidenced in Figure 15.

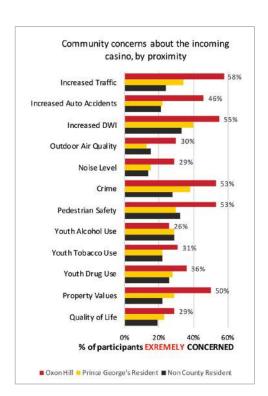


Figure 15: Community Concerns about the Incoming Casino, by Proximity

MONITORING AND EVALUATION

Analysis of Maryland Helpline Data

The Research Program on Gambling (RPG) is providing technical, scientific, and analytic support for evaluation of Maryland Helpline data. The RPG works closely with the the Center's Program Director and support personnel that operate the Helpline to improve data completeness and streamline data transfer for reporting and analytic purposes.

In general, the Maryland Helpline receives approximately 45 calls per month, at any point throughout the day. The majority of calls are initiated by the individual looking for information regarding their own gambling behavior; however, approximately 17% of calls are initiated on behalf of someone else. In FY2018, males and females initiated calls equally, but the concerned caller referenced the gambler (whether the call is requesting information for the self or another) as male the majority of the time (58%).

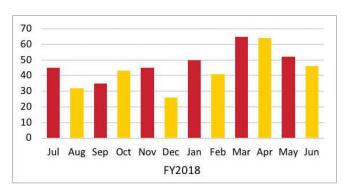


Figure 16: Total Number of Helpline Callers by Month

The ultimate measure of success for each call is to provide help to the gambler toward improving the quality of his or her life, and by extension have a positive effect on the gambler's family, friends, and work place. To achieve this goal, intermediate objectives must be defined, tracked, and reassessed in order to determine whether contact with the Maryland Helpline has a positive, negative, or neutral effect on those who access it.

Based on data available to date, the RPG proposes potential intermediate endpoints that can be tracked to monitor effectiveness of the Maryland Helpline:

- Did the caller use information provided by the Maryland Helpline (e.g., contact made with services, called counselor, attended GA meeting?)
- Was the caller's stated reason for the call met?
- Was the caller satisfied with the information provided?

Several of the proposed intermediate end-points would require callers to provide identifying information to be used for follow-up. The RPG continues to believe there is value in allowing callers to **voluntarily** waive anonymity in order to allow the Maryland Helpline to make follow-up contact if it would be of value to the caller.

Effectiveness of Maryland's Peer Support Program

Similar to the analysis of Maryland Helpline data, the Research Program on Gambling (RPG) is providing technical, scientific, and analytic support to the evaluation of the Maryland Peer Support Program. In collaboration with the Center's Program Director and peer personnel, the RPG has developed a data collection plan and begun analysis of the effectiveness of the program.

Peer support coordinators have made a total of 62 successful initial contacts with help seeking individuals. Individuals most often cited "referral to help" as the primary purpose for the call (47.5%), with 72.9% of callers wishing to "stop gambling." The most referrals were made to Gamblers Anonymous (GA, n=43) followed by a referral to a provider (n=25). Of the initial contacts, 45 individuals have been contacted for follow-up calls, with an average of four calls per individual. Accounting for each of the follow-up calls, 12 individuals made and/or kept an appointment with a provider and 16 attended a GA meeting.

Throughout FY19, the RPG will finalize an analysis plan to determine the efficacy of the Maryland Peer Support program.



Monitoring and Evaluation of Maryland Coalition of Families (MCF) Support Services

The Research Program on Gambling (RPG) is providing scientific and analytic support for the monitoring and evaluation of MCF data. Throughout FY2018, the RPG worked closely with the director of MCF to streamline data transfer for reporting and analytic purposes.

Review of data indicated that MCF has made significant strides in distributing family resources. MCF has assisted families by helping navigate resources on the Center's website and assisted families to make connections with therapists and Gamblers Anonymous Pressure Relief support groups. During FY2018 MCF served eight families in total, logging a total of 44 engagement activities. Additionally, resource materials have been distributed to an estimated 6,400 support groups, outreach fairs, training workshops, committee meetings, and to individual families. Data support the notion that MCF is meeting their objective of providing meaningful services to the family members of individuals with gambling disorder.

Research on peer support services and family involvement in recovery often reveal more positive treatment outcomes. The RPG continues to support the MCF in their mission to provide meaningful services to individuals and their families. RPG will continue to monitor and evaluate MCF's mission.

Evaluation of the Faith Based Gambling Initiative

The objective of the faith based gambling initiative is to investigate the link between trained faith leaders and healthcare centers, with the notion that clergy and lay ministers have the capability, skills, and more comfortable environment to assist individuals in disclosing gambling behaviors in a non-clinical setting.

Leaders of the Maryland Council for Problem Gambling (MCPG) met with members of the Research Program on Gambling (RPG) to discuss the implementation of a formal program to evaluate the faith based gambling initiative. In collaboration, the RPG developed a questionnaire and strategies for data collection. Within the coming year, the RPG will review and analyze the data, providing MCPG with the results and efficacy of the faith based gambling initiative.

Assessing Gambling in Vulnerable Populations

The Research Program on Gambling (RPG) focused its efforts on evaluating the impact of gambling on two vulnerable populations: veterans and casino workers. Research on these two populations has provided foundations of which can inform potential screening, prevention, and treatment for individuals with gambling disorder. Additionally these populations provide a unique view into occupational health and safety related to gambling behavior.

Stemming from research conducted for the 2014 seed grant, Lauren Levy, JD, MPH, and Kathleen Tracy, PhD, published "Gambling Disorder in Veterans: A Review of the Literature and Implications for Future Research" online in *Journal of Gambling Studies* in February 2018. Levy and Tracy reviewed 52 articles citing that although there have been decades of research in this field, considerable more research with a public health approach will better emphasize and inform strategies for screening, prevention, and treatment in veterans is required.

Members of the RPG's Research Affiliate Program undertook an investigation into the occupation health and safety of U.S. casino workers. This work, "Occupational Exposures and Associated Risk Factors Among U.S. Casino Workers: A Narrative Review," was submitted to AIMS Public Health for publication in FY2018. Clouser et al. reviewed 11 articles relating to occupational health and safety of casino workers. Findings suggest a substantial gap in knowledge about the hazards and exposures casino workers face, specifically related to environmental exposures, harassment and female safety issues.

SURVEILLANCE

Free State Data Warehouse

The Free State Data Warehouse is a curated warehouse of data implemented to support assessment of the public health impact of gambling in the State of Maryland. The following data sources are currently available through the data warehouse:

Source	Dataset		
Maryland Lottery and Gaming Control Agency	Lottery revenue, Gaming revenue, Instant bingo halls		
Maryland Office of the Comptroller	State budget		
Maryland State Stat	Vehicular collisions, Population size		
Beta Baltimore	Crime, Arrest, Crime camera locations		
Baltimore Neighborhood Indicators Alliance	Vital signs, Community maps		
Baltimore City Dept. of Finance	Simulated slot machines		
Gambling Impact and Behavior Study	Adult survey, Youth survey, Community database		
National Epidemiologic Survey on Alcohol and Related Conditions	Wave 1 data, Wave 2 data		
US Census	Block / Tracts maps		
Crash Outcomes Data Evaluation	MVA Licensing & Registration		
System (CODES)	Motorcycle Safety Training		
	Driver Citations		
	Police Crash Reports		
	Ambulance & EMS logs		
	Emergency Department Data		
	Hospital Records Statewide Trauma Registry		
	Toxicology		
	Autopsy Records Vital Statistics		
	Motorcycle Safety Training		
	Driver Citations		
Maryland Statewide Gambling Prevalence	Raw data from 2010 survey		

Figure 17

The Data Warehouse continued to serve as a valuable resource for researchers with interest in gambling in FY2018 as evidenced by those studies currently utilizing its datasets. Highlights from selected projects are provided below.

Increases in Motor Vehicle Crashes Following Maryland Live! Casino's Opening

Little is known regarding the public health impact of legalizing casino gambling. Increases in motor vehicle crashes are a common community concern when casinos are proposed for jurisdictions where casino gambling was previously banned. The objective of this project—that used Crash Outcomes Data Evaluation System (CODES) data from the Data Warehouse—was to evaluate traffic crashes before and after the opening of Maryland Live! Casino. The specific aims of the project were to determine whether the frequency of certain types of crashes increased; to determine driver characteristics related to any observed increase in crashes; and to determine if alcohol-related crashes have increased more than other types of crashes.

Data for this study included crash data for motor vehicle crashes that occurred for the 18-month period prior to the opening of Maryland Live! and for the 18-month period after the casino opened. Data were derived for all crashes that occurred within a 1-mile and a 5-mile radius of the casino. During FY 16, 2-mile radius data were also added. Data used for this study included reported crashes from the State Police crash database, geographic location of crash data from the State Highway Administration database, and driver data from the Maryland Motor Vehicle Administration Driver's License file.

Crashes occurring within 1-mile of the casino increased by 34.2%, while crashes occurring within a 5-mile radius increased by 7%. For the area representing the 1-mile radius of the casino, weekend motor vehicle crashes increased by approximately 77%, crashes occurring between 9pm and 5am increased by nearly 87%, and crashes in which one of the drivers involved was impaired at the time of the crash increased by approximately 58%, especially when drivers were impaired by alcohol. The greatest increases in motor vehicle crashes were among individuals who lived near the casino. Notably, the greatest percentage increase in motor vehicle crashes occurred among drivers from Virginia, a state that does not currently offer legalized gambling. No significant increases were noted within a 5-mile radius of the casino.

This study demonstrated the value of data linkage studies for evaluating the public health impact of casinos on the jurisdictions in which they are located. Increases in crashes within one mile of the casino are particularly concerning given that the frequency of motor vehicle crashes has been declining overall for the state of Maryland.

Over the course of FY2018, the CODES team also obtained traffic volume data from the area around the Maryland Live! Casino. This allowed for evaluation of the possibility that increases in crashes reflected simple increases in traffic volume. Data indicate that traffic volume was relatively stable for the period under investigation, indicating increases in motor vehicle crashes within a 1-mile radius of the Maryland Live! Casino cannot be attributed to increases in traffic volume.

Throughout FY2018, analyses focused on the examination of pedestrian and other related crashes proximal to racetracks, the other five Maryland casinos, 13 regulated bingo halls, and how crash activities relate to popular hours of operation at these sites. RPG is also examining the medical impact of casinos on emergency medical services in the areas around casinos. RPG anticipates that these analyses will be completed in FY2019.

Statewide Gambling Prevalence

As part of the legislation legalizing slot machine gambling in the state, the General Assembly included a statutory provision requiring the Maryland Department of Health and Mental Hygiene (DHMH) to conduct an initial assessment of problem gambling prevalence on or before July 1, 2009 with follow-up prevalence studies to be completed no less than every five years. The initial report, Gambling Prevalence in Maryland: A Baseline Analysis, was submitted in June 2011. Responsibility for conducting the statewide prevalence of gambling study now rests with the Research Program on Gambling (RPG).



Figure 18: Crash Circles Around Casino

DOMESTIC ACTUALS	Within 1 Mile Radius (N = 773)			Within 5 Miles (N = 6,497)		
	Before	After	% Change	Before:	After	% Change
Weekend - Fri Sat Sur	128	227	77,34%	1141	1344	17,79%
Single Vehicle (+)	103	127	23.30%	964	1023	6.12%
Impaired crash	24	38	58.33%	266	277	4.149
9pm-Sam	61	114	86,89%	624	662	6.09%
	Within 1 Mile Radius (N +1,383					
	Within 1	_	THE RESERVE OF THE PARTY OF THE	Within	5 Miles	N = 11,746)
	Within 1 Before	After	Sus (N ×1,383 % Change	Within Before	After	N = 11,746) % Change
Male (+)	-	_	THE RESERVE OF THE PARTY OF THE	-	_	% Change
Male (+) Age 21 - 49	Before	After	% Change	Before	After	% Change 8.71%
	Before 307	After 465	% Change 51.47%	Before 3250	After 3533	% Change 8.71%
Age 21 - 49	Before 307 387 103	After 465 521	% Change 51.47% 34.63%	Before 3250 3535	After 3533 3802	% Change 8.73% 7.55%
Age 21 - 45 Age 50+	Before 307 387 103	After 465 521 153	% Change 51.47% 34.63% 48.54%	8efore 3250 3535 1225	After 3533 3802 1458	% Change 8.71% 7.55% 19.02%

Figure 19

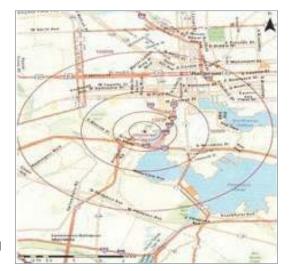


Figure 20: Baltimore Horseshoe Casino by Walking Distance

The Baseline Study of Gambling in Maryland was conducted in September 2010; the second statewide prevalence study was scheduled to be conducted no later than 2015 to comply with the legislative requirement. Based on consultation with DHMH colleagues and researchers in the field, it was recommended the statewide prevalence study of gambling in Maryland be postponed until June 2017 in order to assess gambling behavior after all approved casinos are in operation. Following approval of a formal request by then Secretary Sharfstein, follow-up data collection began in June 2017.

The leadership of the RPG worked with the Center's Steering Committee, including members of the Behavioral Health Adminstration (BHA), to finalize content for the follow-up prevalence survey. A major new area of content includes questions related to fantasy sports. In addition, the RPG formed a partnership with the Schaefer Center for Public Policy at the University of Baltimore, which led data collection for the 2010 prevalence survey, to assist with the sampling and survey implementation. Data analysis was completed in December 2017. A final report was presented to BHA and Maryland Legislature in FY2018 and is currently undergoing review.

CAPACITY BUILDING AND OUTREACH

Visiting Scholar Program

In order to build expertise in gambling research, the Research Program on Gambling (RPG) invited visiting and student scholars to apply for the Visiting Scholar Program. Surjeet Baidwan, Ph.D from Coppin State accepted a visiting scholar appointment and collaborated with leaders of the RPG on a manuscript relating to occupational health concerns of casino workers. Additionally, the RPG mentored two students; Brenden Day M.D. and Krystal Swasey MPH. Dr. Day focused on investigating racial differences between incomes and disordered gambling. Ms. Swasey concentrated on the association between sex and gambling behavior.

Research Affiliate Program

The Research Affiliate Program is a networking and outreach program within the Research Program on Gambling (RPG). It is comprised of faculty, staff, and other associated individuals who are interested in the scientific study of gambling and the impact of gambling on populations. The RPG is housed at the University of Maryland School of Medicine and the Research Affiliate Program extends the outreach of the Research Program and Center.

Faculty and staff from all schools of the University of Maryland, Baltimore, and the University System of Maryland campuses are also eligible to be affiliates of the Center. Other interested parties are invited to apply for affiliation.

Affiliates of the research program are working together with RPG faculty to extend the research agenda to the study of gambling addiction, as well as the larger individual, community, and social impacts of gambling. Examples of research being conducted by Research Program affiliates include:

- Etiology of gambling addiction
- Prevention of pathological and problem gambling
 Policy evaluation
- Genetic architecture of behavioral addictions
- Social impact assessments of gambling on individuals and communities
- Neuroimaging correlates of gambling behavior
- Data linkage studies of gambling-related traffic crashes
- Injury prevention

Status as a research affiliate confers access to a network in which junior and senior affiliated faculty members share, mentor, and collaborate on research studies of myriad aspects of gambling. Affiliates have access to the RPG's Free State Data Warehouse to perform secondary data analysis projects or to provide pilot data for grant applications. The RPG also maintains

staff trained in the aspects unique to research in the area of behavioral addiction, including reluctance to participate, issues with self-report and heightened privacy concerns.

The RPG currently has 45 faculty and 32 staff affiliates.

STRATEGIC COLLABORATIONS

Partnership with NICHD Analytical and Functional Biophotonics

Functional near-infrared spectroscopy (fNIRS) is an imaging technology designed to be a less invasive, more cost-effective alternative to MRI for studying patterns of brain activation associated with various conditions and disorders. As it relates to the behavioral addiction of gambling, there is some scientific evidence to suggest brain functioning of problem gamblers is different from that of non-problem gamblers, particularly in the dorsolateral prefrontal cortex.

The Research Program on Gambling (RPG) has established a research partnership with the laboratory of Dr. Amir Gandjbakhche at the National Institute of Child Health and Human Development (NICHD). Dr. Gandjbakhche is an internationally recognized expert in fNIRS. In partnership with RPG, Dr. Gandjbakhche has extended his fNIRS research to the study of problem gambling.

The RPG entered into a formal scientific partnership with Dr. Gandjbakhche in 2015 to evaluate the reliability, validity and feasibility of using the fNIRS for the study of gambling behavior. Together Drs. Tracy and Gandjbakhche have developed a formal research protocol for assessing individuals during performance of a gambling task, while simultaneously being measured via fNIRS.

The first 1000 PEGASUS participants participated in fNIRS research. Data collection concerning fNIRS was completed in FY17. Data analysis concerning patterns of brain activation related to gambling behavior was completed in FY2018. Manuscripts are to be completed in FY19.

IMPACT OF GAMBLING ON VULNERABLE POPULATIONS

Adaption and Feasibility Testing of a Gambling Specific SBIRT Intervention in a Real World Clinical Setting

The Center continued work on a grant awarded in FY2016 from the National Center on Responsible Gaming (\$150,000) for "Adaption and Feasibility Testing of a Gambling Specific SBIRT Intervention in a Real World Clinical Setting."

This project has three aims. Over the last two years, AIMS # 1 and 2 have been completed; work on AIM #3 will be conducted in FY19. Approximately eight clinicians and 100 clients will be consented. Clients will complete a baseline interview. Those randomized to the SBIRT condition will complete a SBIRT session. Based on responses to the session, participants will be given a tailored intervention based on risk category: Low, Moderate or High. Those randomized to the control group will receive a gambling resource guide. Clients will complete a second interview approximately 30 days post the baseline interview. Clinicians and clients will complete a debriefing session and provide feedback on their SBIRT experience.

- Aim 1: To develop a problem gambling specific Screening, Brief Intervention and Referral to Treatment (SBIRT) intervention targeting individuals attending general primarycare clinics (Stage 1A).
- Aim 2: To evaluate the feasibility/acceptability of inserting problem gambling specific SBIRT
 in to preexisting substance use SBIRT procedures being provided in FederallyQualified Health
 Centers (FQHCs). (Stage 1A)
- **Aim 3:** To conduct a randomized trial using the problem gambling SBIRT intervention to see if it is efficaciousin helping patients reduce their problematic gambling behaviors. (Stage 1B)

FUTURE DIRECTIONS

PUBLIC AWARENESS

- Design additional PSA's with the focus on connecting help seekers to treatment resources.
- Develop a new documentary to target Military/Veteran populations.
- Update the Center's help seeker website helpmygamblingproblem.org with additional interactive content to facilitate awareness and assist with engaging individuals with resources for help within their communities.
- In collaboration with the Maryland Council on Problem Gambling (MCPG), expand Faith-Based awareness efforts by continuing to train an ecumenical range of faith-based leaders and to directly reach out to congregations to provide information on responsible and problem gambling and resources for help within their communities.
- Expand Social Media efforts using the latest technology for further outreach and easier access to reach the Maryland Helpline by text and chat.

TREATMENT AND INTERVENTION SERVICES

- Continue outreach efforts to Maryland behavioral health providers, both organizational and private practice, to participate in Maryland's no-cost treatment initiative for problem gamblers and/or concerned others.
- Technical assistance will continue to be provided to behavioral health agencies and private
 practitioners state-wide on the integration of problem gambling screening and assessment into
 their current protocols.
- Collaborate with the Behavioral Health Administration (BHA) and the Maryland Lottery and Gaming Control Agency (MLGCA) to ensure that the Voluntary Exclusion Program continues to be a successful tool for problem gamblers.
- Continue to strengthen relations with the Maryland Gaming industry to support the Center's goal for incorporation of responsible gambling practices at their facilities.
- Increase Helpline accessibility for Maryland residents, emphasizing all points of contact for help phone, text and chat – to ensure connection to treatment.
- Examine the need for production and translation of outreach materials in other languages, specifically Spanish and Asian.

PEER RECOVERY SUPPORT

- Continue use of Peers as an initial point of contact to further increase referrals to treatment and recovery support for individuals struggling with gambling addiction.
- Continue collaborative efforts with the Maryland Coalition of Families (MCF) to ensure family/ concerned others of the problem gambler receive the help needed.
- Continue to build relationships with community behavioral health providers and existing Peer programs across the state to increase awareness of Gambling Peer resources.
- Continue staff participation in peer related training opportunities to further enhance skills and networking opportunities.



TRAINING AND EDUCATION

- Expand online, on-demand training to include Clinical Training basics for a broader outreach to providers.
- Working with substance use and mental health organizations throughout the state, continue to develop and present specific training programs as needed to ensure the capability of providers to offer no cost treatment counseling.
- Continue to offer regional and statewide basic and advanced clinical training as well as in service training as needed by health departments and organizations.
- Continue to develop the Annual Maryland Conference on Problem Gambling as a premiere event on gambling prevention, treatment, research and recovery.

PREVENTION

- Compile a problem gambling prevention needs assessment, including compilation of quantitative and qualitative data on problem gambling prevalence, trends and negative outcomes for adults and youth.
- Develop a comprehensive problem gambling prevention strategic plan.
- Implement special population problem gambling grants to organizations that reach populations statewide and develop evaluation tools.
- Implement youth grants in casino jurisdictions to empower youth to reach their peers with messages and strategies promoting problem gambling prevention.

PUBLIC POLICY

- Continue to track gambling-related legislation and policy.
- Prepare ongoing summaries of Gaming laws nationally, policy changes and court decisions relating to gambling activity at the federal level, and potential legislation for expansion of gambling venues in Maryland and adjoining states.

RESEARCH

- Continue monitoring and identifying prevention strategies of disordered gambling.
- Assess the impact of increased legalized gambling on Maryland residents.
- Coordinate with The Center in monitoring, evaluating and analyzing helpline data and Peer Support Program. Provide analytic support and evaluation of treatment and intervention services.
- · Promote scientific research on gambling behavior through manuscripts and presentations.



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